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3150 2756A>G D919G  
3207 2813G>T S938I  
3209 2815G>C G939R  
5444 5050C>A 3'  
5551 5157G>A 3'  
5573 5179C>T 3'  
5659 5265T>C 3'  
5678 5284T>C 3'  
5874 5480C>T 3'  
5934 5540A>G 3'

D78586 D78586 114010 GEN-BR CAD PROTEIN (SEQ  
ID NO:2)

3434 3408C>T Silent  
4313 4287T>C Silent  
4799 4773A>G Silent  
5255 5229C>T Silent  
5455 5429G>A R1810Q  
5507 5481T>C Silent  
5810 5784C>T Silent  
6128 6102C>T Silent  
6626 6500C>T Silent  
6686 6560C>T Silent

U09178 U09178 274270 GEN-HA  
Dihydropyrimidine Dehydrogenase (SEQ ID NO:3)

166 85T>C C29R  
577 496A>G M166V  
638 557A>G Y186C  
1708 1627A>G I543V  
3432 3351T>C 3'  
3682 3601C>T 3'  
3730 3649G>A 3'  
3925 3844A>G 3'  
3937 3856T>C 3'

U19720 U19720 600424 GEN-I1 Folate  
Transporter (SLC19A1) (SEQ ID NO:4)

175 80G>A R27H  
341 246C>G Silent  
791 696C>T Silent  
1067 972G>A Silent  
1337 1242C>A Silent  
1997 1902T>C 3'  
2100 2005^2006insG 3'  
2582 2487T>G 3'  
2617 2522C>T 3'  
2652 2557T>C 3'

Sub E1

B2  
cont

B

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U92868 U92868 600424 GEN-LUK Homo sapiens reduced  
folate carrier (RFC1) gene, exons 1a, 1c and 1b (SEQ ID NO:5)  
431 431A>G Intron  
441 441A>G Intron  
498 498C>T Intron  
579 579G>C Intron  
599 599G>C Intron

X02308 X02308 188350 GEN-KL Thymidylate  
synthetase (SEQ ID NO:6)  
1066 961T>C 3'  
1136 1031A>G 3'  
1497 1392T>A 3'

D00517 D00517 188350 GEN-LUC Thymidylate  
synthase, promoter (SEQ ID NO:7)  
276 276C>T Intron  
321 321T>C Intron  
452 452G>A Intron  
457 457^insC Intron  
491 491C>A Intron  
533 533T>C Intron  
624 624A>C Intron  
639 639A>G Intron  
655 655T>C Intron

D00596 D00596 188350 GEN-LUD Homo sapiens  
gene for thymidylate synthase, exons 1, 2, 3, 4, 5, 6, 7,  
complete cds (SEQ ID NO:8)

701 701A>C Intron  
716 716A>G Intron  
732 732T>C Intron  
1293 1293A>G Intron  
1322 1322C>G Intron  
1379 1379T>C Intron  
1590 1590C>T Intron  
1688 1688C>G Intron  
2401 2401A>G Intron  
2429 2429G>A Intron  
2488 2488C>T Intron  
2594 2594G>T Intron  
2618 2618G>A Intron  
3083 3083G>A Intron  
3125 3125G>A Intron  
3212 3212C>T Intron  
3619 3619T>A Intron  
3635 3635G>A Intron  
4256 4256G>A Intron

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4898 4898A>G Intron  
5006 5006C>T Intron  
5062 5062G>A Intron  
5167 5167G>A Intron  
11069 11069A>G Intron  
11238 11238C>T Intron  
11293 11293T>G Intron  
11422 11422T>C Intron  
11686 11686C>T Intron  
12598 12598T>C Intron  
13171 13171T>C Intron  
13298 13298G>A Intron  
13645 13645T>C Intron  
13751 13751C>A Intron  
13782 13782T>C Intron  
13806 13806T>C Intron  
13813 13813T>C Intron  
14479 14479A>G Intron  
14546 14546^insT Intron  
14585 14585C>T Intron  
14729 14729G>A Intron  
14787 14787C>T Intron  
14795 14795G>A Intron  
15041 15041T>C Intron  
15343 15343G>A Intron  
15449 15449G>A Intron  
15502 15502G>A Intron  
15545 15545C>T Intron  
15589 15589A>G Intron  
15769 15769C>T 3'  
15839 15839A>G 3'  
16148 16148G>A 3'  
16198 16198T>G 3'  
16202 16202G>T Intron

X59618 X59618 180390 GEN-M3 Ribonucleotide  
reductase M2 polypeptide (SEQ ID NO:9)  
128 (-67)G>A 5'  
189 (-6)T>G 5'  
524 330C>G Silent  
1399 1205T>A 3'  
1464 1270G>A 3'  
1636 1442C>T 3'  
1738 1544C>T 3'  
2259 2065T>C 3'

SubE1

DR  
cont

B

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S72487 S72487 131222 GEN-3LD Thymidine  
phosphorylase, partial (SEQ ID NO:10)

183 19G>A D7N  
483 319C>T 3'  
601 437G>C 3'  
1299 1135G>A 3'

M58602 M58602 131222 GEN-LUB Thymidine  
phosphorylase, promoter and genomic (SEQ ID NO:11)

124 124C>T 3'  
439 439G>A 3'  
1044 1044^insCT 3'  
1331 1331G>A 3'  
1977 1977G>A Intron  
2149 2149G>A Intron  
2467 2467A>G Intron  
2634 2634C>G Intron  
2975 2975G>A Intron  
3116 3116G>T Intron  
3255 3255A>C Intron  
3344 3344T>C Intron  
4051 4051C>A Intron  
4782 4782G>A Intron  
5022 5022T>C Intron  
5266 5266G>A Intron  
5285 5285C>G Intron  
5438 5438T>A Intron  
5482 5482C>T Intron  
5629 5629G>A Intron  
5648 5648C>T Intron  
5731 5731G>A Intron

M98045 M98045 136510 GEN-4C3 Homo sapiens  
folylpolyglutamate synthetase mRNA, complete cds (SEQ ID NO:12)

802 732C>T Silent  
1747 1677G>T 3'  
1900 1830T>C 3'

U24253 U24253 136510 GEN-LUE Human  
folylpolyglutamate synthetase (FPGS) gene, exons 5-11, and  
partial cds (SEQ ID NO:13)

1424 1424C>A Intron  
1649 1649G>A Intron  
2554 2554A>G Intron

U24252 U24252 136510 GEN-LUF  
Folylpolyglutamate synthetase, promoter and exons 1-4 (SEQ ID  
NO:14)

263 263A>G Intron

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266 266G>T Intron  
527 527C>G Intron  
1037 1037A>G 5'  
1139 1139G>A Intron  
1217 1217C>T Intron  
1647 1647C>T Intron  
1955 1955G>A Intron  
2017 2017G>A Intron  
2037 2037G>A Intron  
2189 2189A>G Intron  
2282 2282C>T Intron  
2309 2309A>G Intron

U09806 U09806 236250 GEN-4FZ Human  
methylenetetrahydrofolate reductase mRNA, partial cds (SEQ ID  
NO:15)

120 120T>C Silent  
464 464T>G M155R  
519 519C>T Silent  
668 668C>T A223V  
1059 1059T>C Silent  
1289 1289C>A 3'  
1308 1308T>C 3'  
1784 1784G>A 3'

AF061655 AF061655 123920 GEN-LUJ Cytidine  
deaminase, promoter (SEQ ID NO:16)

575 575T>C Intron  
648 648T>C Intron  
771 771G>C Intron  
883 883G>A Intron  
941 941^insC 5'  
1051 1051A>C K27Q

### In the Claims

Amend claims 171, 172, and 181 as follows.

171. (amended) An isolated nucleic acid probe comprising at least 15 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15 (methylenetetrahydrofolate reductase), the probe comprising at least one of:

- (a) nucleotide 120 wherein N is C;
- (b) nucleotide 464 wherein N is G;
- (c) nucleotide 519 wherein N is T;
- (d) nucleotide 668 wherein N is T;
- (e) nucleotide 1059 wherein N is C;